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Titel of paper: Analysis of Tumor - Associated Macrophages in Human Breast Cancer by Flow Cytometry

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Tumor infiltrating leukocytes is one of the significant parameters in evaluating the immunostatus of body defence response against tumors cells. Macrophages is known to play an important role in immune response against tumors.

In this research we studied the tumor associated macrophages (TAM) in 17 patients whom suffered from breast cancer by flow cytometry. Thirteen of these patients had invasive ductal carcinoma, two invasive lobular carcinoma, one intraductal carcinoma and one atypic medullary carcinoma according to the pathological reports.

In intratumor studies its found that the infiltration of CD45+Cells(Leukocytes) were 17.13% of tumor cell suspensions (in the case of invasive ductal carcinoma this value was 16.4%).

Macrophages with CD45+/CD14+ phenotype were 2.45% of tumor cell suspensions. These cells were 25.87% of infiltrated leukocytes (CD45+cells). Also we used CD16 and HLA-DR markers for recognizing the activated macrophages. Macrophages with CD16+/CD14+ phenotype were 1.52% and macrophages with HLA-DR+/CD14+ phenotype were 1.48% of tumor cell suspensions. Also CD16+/CD14+ cells and HLA-DR+/CD14+ cells were counted in ratio to CD45+cells. CD16+/CD14+ cells was 15.77% and HLA-DR+/CD14+ cells was 13.81%.

In these studies we could not found a signifcat correlation between infiltration of macrophages with age of patients and with size of tumors.

Key words :

Tumor - Associated marrophages , Breast cancer , flowcytometry.